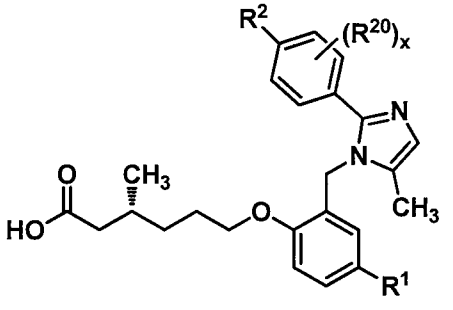
CLAIMS

1. A compound of Formula (Iaa):



(Iaa);

or a pharmaceutically acceptable salt thereof,

wherein:

R^1 is hydrogen, halogen, -C_1–C_4-alkyl, -C_1–C_4-haloalkyl, -CN, -C_1–C_4-alkoxy, -C_1–C_4-haloalkoxy, or -C_3–C_6-cycloalkyl;

R^2 is halogen, -C_1–C_4-alkyl, -C_1–C_4-haloalkyl, -C_1–C_4-haloalkoxy, -S(C_1–C_4-alkyl), or furanyl, wherein the furanyl can be optionally substituted with -C_1–C_4-alkyl;

x is an integer having a value of 1 or 2;

each R^{20} is independently hydrogen, halogen, -C_1–C_4-alkyl, -CN, or -C_1–C_4-alkoxy.

2. The compound of claim 1, wherein R^2 is halogen, -CH_3, -C_1-haloalkyl, -C_1-haloalkoxy, -SCH_3, or furanyl, wherein the furanyl can be optionally substituted with -CH_3, or a pharmaceutically acceptable salt thereof.

3. The compound of claim 1 or 2, wherein R^1 is hydrogen or halogen, or a pharmaceutically acceptable salt thereof.

4. The compound of any one of claims 1–3, wherein each R^{20} is independently hydrogen or halogen, or a pharmaceutically acceptable salt thereof.

5. The compound of any one of claims 2-4, wherein R^2 is chloro, unsubstituted furanyl, -CH_3, -CF_3, -OCF_3, -$OCHF_2$, or -SCH_3, or a pharmaceutically acceptable salt thereof.

6. The compound of claim 1–5, wherein R^2 is -CF_3 or -OCF_3, or a pharmaceutically acceptable salt thereof.

7. The compound of claim 1–6, wherein R^2 is $-CF_3$, or a pharmaceutically acceptable salt thereof.

8. The compound of any one of claims 3-7, wherein R^1 is hydrogen or fluoro, or a pharmaceutically acceptable salt thereof.

9. The compound of any one of claims 4-8, wherein R^{20} is hydrogen or fluoro, or a pharmaceutically acceptable salt thereof.

10. A compound, wherein the compound is

(*R*)-3-methyl-6-(2-((5-methyl-2-(4-(trifluoromethoxy)phenyl)-1*H*-imidazol-1-yl)methyl)phenoxy)hexanoic acid,

(*R*)-6-(2-((2-(4-(furan-2-yl)phenyl)-5-methyl-1*H*-imidazol-1-yl)methyl) phenoxy)-3-methylhexanoic acid,

or a pharmaceutically acceptable salt thereof.

11. (*R*)-3-methyl-6-(2-((5-methyl-2-(4-(trifluoromethyl)phenyl)-1*H*-imidazol-1-yl)methyl)phenoxy)hexanoic acid or a pharmaceutically acceptable salt thereof.

12. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or excipient and the compound of any one of claims 1–11, or a pharmaceutically acceptable salt thereof.

13. A compound of any one of claims 1–11, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of claim 12 for use in treating a PPARδ related disease or condition in a subject, wherein the PPARδ related disease is a muscle structure disorder, a neuronal activation disorder, a muscle fatigue disorder, a muscle mass disorder, a mitochondrial disease, a beta oxidation disease, a metabolic disease, a cancer, a vascular disease, an ocular vascular disease, a muscular eye disease, or a renal disease.

14. Use of a compound of any one of claims 1–11, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of claim 12, in the manufacture of a medicament for treating a PPARδ related disease or condition in a subject, wherein the PPARδ related disease is a muscle structure disorder, a neuronal activation disorder, a muscle fatigue disorder, a muscle mass disorder, a mitochondrial disease, a beta oxidation disease, a metabolic disease,

a cancer, a vascular disease, an ocular vascular disease, a muscular eye disease, or a renal disease.

15. The use of claim 14, wherein:

the muscle structure disorder is selected from the group consisting of Bethlem myopathy, central core disease, congenital fiber type disproportion, distal muscular dystrophy (MD), Duchenne & Becker MD, Emery-Dreifuss MD, facioscapulohumeral MD, hyaline body myopathy, limb-girdle MD, a muscle sodium channel disorders, myotonic chondrodystrophy, myotonic dystrophy, myotubular myopathy, nemaline body disease, oculopharyngeal MD, and stress urinary incontinence;

the neuronal activation disorder is selected from the group consisting of amyotrophic lateral sclerosis, Charcot-Marie-Tooth disease, Guillain-Barre syndrome, Lambert-Eaton syndrome, multiple sclerosis, myasthenia gravis, nerve lesion, peripheral neuropathy, spinal muscular atrophy, tardy ulnar nerve palsy, and toxic myoneural disorder;

the muscle fatigue disorder is selected from the group consisting of chronic fatigue syndrome, diabetes (type I or II), glycogen storage disease, fibromyalgia, Friedreich's ataxia, intermittent claudication, lipid storage myopathy, MELAS, mucopolysaccharidosis, Pompe disease, and thyrotoxic myopathy;

the muscle mass disorder is cachexia, cartilage degeneration, cerebral palsy, compartment syndrome, critical illness myopathy, inclusion body myositis, muscular atrophy (disuse), sarcopenia, steroid myopathy, or systemic lupus erythematosus;

the mitochondrial disease is selected from the group consisting of Alpers's Disease, CPEO-Chronic progressive external ophthalmoplegia, Kearns-Sayra Syndrome (KSS), Leber Hereditary Optic Neuropathy (LHON), MELAS-Mitochondrial myopathy, encephalomyopathy, lactic acidosis, and stroke-like episodes, MERRF-Myoclonic epilepsy and ragged-red fiber disease, NARP-neurogenic muscle weakness, ataxia, and retinitis pigmentosa, and Pearson Syndrome;

the beta oxidation disease is selected from the group consisting of systemic carnitine transporter, carnitine palmitoyltransferase (CPT) II deficiency, very long-chain acyl-CoA dehydrogenase (LCHAD or VLCAD) deficiency, trifunctional enzyme deficiency, medium-chain acyl-CoA dehydrogenase (MCAD) deficiency, short-chain acyl-CoA dehydrogenase (SCAD) deficiency and riboflavin-responsive disorders of β -oxidation (RR -MADD);

the metabolic disease is selected from the group consisting of hyperlipidemia, dyslipidemia, hyperchlolesterolemia, hypertriglyceridemia, HDL hypocholesterolemia, LDL

hypercholesterolemia and/or HLD non-cholesterolemia, VLDL hyperproteinemia, dyslipoproteinemia, apolipoprotein A-I hypoproteinemia, atherosclerosis, disease of arterial sclerosis, disease of cardiovascular systems, cerebrovascular disease, peripheral circulatory disease, metabolic syndrome, syndrome X, obesity, diabetes (type I or II), hyperglycemia, insulin resistance, impaired glucose tolerance, hyperinsulinism, diabetic complication, cardiac insufficiency, cardiac infarction, cardiomyopathy, hypertension, non-alcoholic fatty liver disease (NAFLD), non-alcoholic steatohepatitis (NASH), thrombus, Alzheimer's disease, neurodegenerative disease, demyelinating disease, multiple sclerosis, adrenal leukodystrophy, dermatitis, psoriasis, acne, skin aging, trichosis, inflammation, arthritis, asthma, hypersensitive intestine syndrome, ulcerative colitis, Crohn's disease, and pancreatitis;

the cancer is a cancer of the colon, large intestine, skin, breast, prostate, ovary, or lung;

the vascular disease is selected from the group consisting of peripheral vascular insufficiency, peripheral vascular disease, intermittent claudication, peripheral vascular disease (PVD), peripheral artery disease (PAD), peripheral artery occlusive disease (PAOD), and peripheral obliterative arteriopathy;

the ocular vascular disease is selected from the group consisting of age-related macular degeneration (AMD), stargardt disease, hypertensive retinopathy, diabetic retinopathy, retinopathy, macular degeneration, retinal haemorrhage, and glaucoma;

the muscular eye disease is selected from the group consisting of strabismus, progressive external ophthalmoplegia, esotropia, exotropia, a disorder of refraction and accommodation, hypermetropia, myopia, astigmatism, anisometropia, presbyopia, a disorders of accommodation, and internal ophthalmoplegia; and

the renal disease is selected from the group consisting of glomerulonephritis, glomerulosclerosis, nephrotic syndrome, hypertensive nephrosclerosis, acute nephritis, recurrent hematuria, persistent hematuria, chronic nephritis, rapidly progressive nephritis, acute kidney injury, chronic renal failure, diabetic nephropathy, and Bartter's syndrome.

16. The compound or the pharmaceutical composition for use of claim 13, wherein:

the muscle structure disorder is selected from the group consisting of Bethlem myopathy, central core disease, congenital fiber type disproportion, distal muscular dystrophy (MD), Duchenne & Becker MD, Emery-Dreifuss MD, facioscapulohumeral MD, hyaline body myopathy, limb-girdle MD, a muscle sodium channel disorders, myotonic chondrodystrophy, myotonic dystrophy, myotubular myopathy, nemaline body disease, oculopharyngeal MD, and stress urinary incontinence;

the neuronal activation disorder is selected from the group consisting of amyotrophic lateral sclerosis, Charcot-Marie-Tooth disease, Guillain-Barre syndrome, Lambert-Eaton syndrome, multiple sclerosis, myasthenia gravis, nerve lesion, peripheral neuropathy, spinal muscular atrophy, tardy ulnar nerve palsy, and toxic myoneural disorder;

the muscle fatigue disorder is selected from the group consisting of chronic fatigue syndrome, diabetes (type I or II), glycogen storage disease, fibromyalgia, Friedreich's ataxia, intermittent claudication, lipid storage myopathy, MELAS, mucopolysaccharidosis, Pompe disease, and thyrotoxic myopathy;

the muscle mass disorder is cachexia, cartilage degeneration, cerebral palsy, compartment syndrome, critical illness myopathy, inclusion body myositis, muscular atrophy (disuse), sarcopenia, steroid myopathy, or systemic lupus erythematosus;

the mitochondrial disease is selected from the group consisting of Alpers's Disease, CPEO-Chronic progressive external ophthalmoplegia, Kearns-Sayra Syndrome (KSS), Leber Hereditary Optic Neuropathy (LHON), MELAS-Mitochondrial myopathy, encephalomyopathy, lactic acidosis, and stroke-like episodes, MERRF-Myoclonic epilepsy and ragged-red fiber disease, NARP-neurogenic muscle weakness, ataxia, and retinitis pigmentosa, and Pearson Syndrome;

the beta oxidation disease is selected from the group consisting of systemic carnitine transporter, carnitine palmitoyltransferase (CPT) II deficiency, very long-chain acyl-CoA dehydrogenase (LCHAD or VLCAD) deficiency, trifunctional enzyme deficiency, medium-chain acyl-CoA dehydrogenase (MCAD) deficiency, short-chain acyl-CoA dehydrogenase (SCAD) deficiency and riboflavin-responsive disorders of β -oxidation (RR -MADD);

the metabolic disease is selected from the group consisting of hyperlipidemia, dyslipidemia, hyperchlolesterolemia, hypertriglyceridemia, HDL hypocholesterolemia, LDL hypercholesterolemia and/or HLD non-cholesterolemia, VLDL hyperproteinemia, dyslipoproteinemia, apolipoprotein A-I hypoproteinemia, atherosclerosis, disease of arterial sclerosis, disease of cardiovascular systems, cerebrovascular disease, peripheral circulatory disease, metabolic syndrome, syndrome X, obesity, diabetes (type I or II), hyperglycemia, insulin resistance, impaired glucose tolerance, hyperinsulinism, diabetic complication, cardiac insufficiency, cardiac infarction, cardiomyopathy, hypertension, non-alcoholic fatty liver disease (NAFLD), non-alcoholic steatohepatitis (NASH), thrombus, Alzheimer's disease, neurodegenerative disease, demyelinating disease, multiple sclerosis, adrenal leukodystrophy, dermatitis, psoriasis, acne, skin aging, trichosis, inflammation, arthritis, asthma, hypersensitive intestine syndrome, ulcerative colitis, Crohn's disease, and pancreatitis;

the cancer is a cancer of the colon, large intestine, skin, breast, prostate, ovary, or lung;

the vascular disease is selected from the group consisting of peripheral vascular insufficiency, peripheral vascular disease, intermittent claudication, peripheral vascular disease (PVD), peripheral artery disease (PAD), peripheral artery occlusive disease (PAOD), and peripheral obliterative arteriopathy;

the ocular vascular disease is selected from the group consisting of age-related macular degeneration (AMD), stargardt disease, hypertensive retinopathy, diabetic retinopathy, retinopathy, macular degeneration, retinal haemorrhage, and glaucoma;

the muscular eye disease is selected from the group consisting of strabismus, progressive external ophthalmoplegia, esotropia, exotropia, a disorder of refraction and accommodation, hypermetropia, myopia, astigmatism, anisometropia, presbyopia, a disorders of accommodation, and internal ophthalmoplegia; and

the renal disease is selected from the group consisting of glomerulonephritis, glomerulosclerosis, nephrotic syndrome, hypertensive nephrosclerosis, acute nephritis, recurrent hematuria, persistent hematuria, chronic nephritis, rapidly progressive nephritis, acute kidney injury, chronic renal failure, diabetic nephropathy, and Bartter's syndrome.